

REMARKS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-54 are pending in the application, with Claims 1-16, 19, and 20-30 having been amended and Claims 31-54 having been added by way of the present amendment.

In the outstanding Office Action, Claims 1-5 and 7-27 were rejected under 35 U.S.C. § 102(e) as being anticipated by Steele (USP 5,884,056); Claims 19, 21, 28 and 30 were rejected under 35 U.S.C. 102(e) as being anticipated by Dom et al. (USP 6,166,735, hereinafter Dom); Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Steele in view of Angiulo et al. (US 6,275,829, hereinafter Angiulo); and Claims 20 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dom in view of Steele.

To more clearly conform with idiomatic English, Claim 1 is amended to recite that the video is sampled “with at least one of a variable time interval parameter and a variable size parameter.” Independent Claims 9, 12, 15, 19, 25, and 28 are similarly amended. Support for these amendments is found in Applicants’ originally filed specification.¹ New Claims 31-54 have been added to recite features described in Applicants’ original specification.² No new matter is added.

Briefly recapitulating, amended Claim 1 is directed to an image information describing method comprising sampling video information including video frames with at least one of a variable time interval parameter and a variable size parameter to obtain thumbnail frames. The claimed method also includes describing attribute information for specifying each of the video frames corresponding to each of the thumbnail frames as

¹ Specification, page 19, lines 10-17 and lines 20-24; page 23, lines 3-20.

² See disclosure for Figures 5-9.

thumbnail information. The advantage of thumbnail frames is that thumbnail frames are smaller than the original video information in data size and, thus, are more easily stored and manipulated for video summarization. By suitably setting the time interval or size of a sample, the thumbnail frames can more suitably reflect the contents of *variable* speed video information (e.g., MPEG 2) than conventional scene-change based sampling.³

Steele discloses creating thumbnail images by sampling video information at random, evenly spaced, or preferably at scene-cut points.⁴ However, contrary to the statement in the Official Action,⁵ Steele does not teach ‘sampling...video frames at arbitrary time interval and size’ as recited in original Claim 1. Neither does Steele teach or suggest ‘sampling...video frames with at least one of a variable time interval parameter and a variable size parameter’ as recited in amended Claim 1. By disclosing sampling at random, evenly spaced, or scene-cut points, Applicants submit Steele teaches a variant of the conventional video sampling art referenced in Applicants’ original specification, which is sub-optimal for sampling variable speed video sources.⁶

Furthermore, Applicants submit that Steele does not teach or suggest ‘describing attribute information for specifying each of the video frames corresponding to each of the thumbnail frames as thumbnail information’ as recited in Applicants’ Claim 1. By describing the attribute information of the frames, this meta-data can be easily searched and manipulated by a user.⁷

As Steele does not disclose or suggest all the elements of independent Claim 1, Applicants submit the inventions defined by Claim 1, and all claims depending therefrom, are

³ Specification, page 3, line – page 4, line 1; especially see page 3, lines 15-25.

⁴ Steele, column 6, lines 29-35.

⁵ Official Action, paragraph 2.

⁶ Specification, page 2, line 25 – page 3, line 11.

⁷ Specification, page 24, lines 11-23.

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not anticipated or rendered obvious by the asserted prior art for at least the reasons stated above.⁸ For at least these same reasons, Applicants submit that the inventions defined by independent Claims 9, 12, 15, 19, 25, and 28, and all claims depending therefrom, also patentably define over Steele.

Applicants have also considered the Dom reference. Dom teaches a thumbnail image sampling and playback system in which the thumbnails are created with a fixed sampling rate and are displayed via a selectable playback rate. However, like Steele, Dom does not teach or suggest 'sampling... with at least one of a variable time interval parameter and a variable size parameter' as recited in Applicants independent Claims 1, 9, 12, 15, 19, 25, and 28. Also like Steele, Dom does not teach or suggest 'describing attribute information for specifying each of the video frames corresponding to each of the thumbnail frames as thumbnail information.' Therefore, Applicants submit that the inventions defined by Claims 1, 9, 12, 15, 19, 25, and 28, and all claims depending therefrom, patentably define over Dom.

Applicants have also considered the Angiulo reference and respectfully submit that Angiulo does not cure the deficiencies of Steele or Dom. Thus, because no combination of Steele, Dom, and Angiulo teach or suggest all the features of Applicants' claimed inventions, Applicants submit that their claimed inventions are not rendered obvious by any combination of these teachings.

⁸ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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